Application No. 10/769,587 Docket No.: ACIZ-P01-029
Amendment dated October 3, 2006

Reply to Office Action of April 28, 2006

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A walking brace for the lower leg of a patient, said walking brace comprising:

a leg portion adapted to fit substantially around the lower leg of a patient,

a rigid sole portion <u>having an upper surface</u> adapted to fit beneath the foot of a patient, <u>and a lower surface</u>, said rigid sole portion having an opening therethrough in the area of the patient's heel, said opening extending through said upper surface and said lower surface of said rigid sole portion, such that no portion of said rigid sole portion is disposed below the patient's heel; and

a shock-absorbing sole portion comprising a dual layer of resilient shock-absorbing material disposed along said-bottom the lower surface of said-the rigid sole portion, said dual layer of resilient shock-absorbing material having a heel portion extending upwardly through said opening in said rigid sole portion to a height no greater than slightly above said the upper surface of said rigid sole portion, said dual layer comprising an upper layer of a relatively softer material and a lower layer of a relatively more durable material, said upper layer being in contact with the patient's heel, said lower layer being in contact with the ground when the patient walks.

- 2. (Original) The walking brace of claim 1 wherein said heel portion is integrally formed with said upper layer of said dual layer of shock absorbing material.
- 3. (Original) The walking brace of claim 1 wherein said heel portion has an upper surface substantially coplanar with said upper surface of said sole portion.
- 4. (Original) The walking brace of claim 1 wherein the material of the lower layer of said dual layer has a greater density than the material of said upper layer of said dual layer.
- 5. (Original) The walking brace of claim 4 wherein said lower layer of said dual layer is made of a material selected from the group consisting of thermoplastic rubber, polyvinyl chloride, and styrene-

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butadiene rubber.

6. (Original) The walking brace of claim 5 wherein said upper layer is made of an ethylene vinyl

acetate polymer.

7. (Original) The walking brace of claim 1 wherein the thickness of said dual layer from the top

surface of the heel portion to the bottom surface of the bottom layer is no greater than about 1 inch.

8. (Original) The walking brace of claim 1 further comprising a foam layer disposed over the upper

surface of said sole portion.

9. (Original) The walking brace of claim 1 wherein said leg portion comprises a rigid shell integral

with said sole portion.

10. (Currently Amended) The walking brace of claim 9 further comprising at least one inflatable air

cell for providing therapeutic pressure to said leg.

11. (Currently Amended) The walking brace of claim 10 wherein said at least one inflatable air cell

comprises a communication means by which the an interior of said air cell can be in fluid

communication with the atmosphere.

12. (Currently Amended) The walking brace of claim 11 wherein said rigid shell comprises at least

one protruding region for receiving said communication means, such that said communication

means is directed toward the a front side of said walking brace.

13. (Currently Amended) The walking brace of claim 9 wherein said rigid shell comprises a rear

shell member and a front shell member, the rear shell member having a width, and said rear shell

member comprising means for expanding the width thereof.

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14. (Original) The walking brace of claim 13 wherein said expansion means comprises at least one

longitudinal slit, such that the portions of said rear shell member on either side of said longitudinal

slit can be pulled apart, such that said rear shell member can expand laterally.

15. (Currently Amended) The walking brace of claim 1314 wherein the an upper end of said

longitudinal slit terminates at the an upper edge of said rear shell member.

16. (Currently Amended) The walking brace of claim 1314 wherein the an upper end of said

longitudinal slit terminates below the an upper edge of said rear shell member, and the a portion of

the shell member between the upper edge of the shell member and the upper end of the longitudinal

slit is cut to allow the portions of the shell portion on either side of the slit eanto be pulled apart to

allow the width of the rear shell member to expand.

17. (Currently Amended) The walking brace of claim 1413 wherein said expansion means

comprises a plurality of longitudinally aligned slits, said longitudinally aligned slits being separated

one from the other by one or more frangible septa.

18. (Currently Amended) The walking brace of claim 1413 wherein said expansion means

comprises a plurality of longitudinal slits spaced laterally from one another.

19. (Currently Amended) A walking brace for the lower leg of a patient, said walking brace

comprising:

a leg portion adapted to fit substantially around the lower leg of a patient, and

a rigid sole portion adapted to fit beneath the foot of a patient, wherein the said leg portion

includes comprising a rigid shell integral with said sole portion, said rigid shell comprising a

rear shell member and a front shell member, <u>and</u> said rear shell member comprising means

for expanding the width thereof.

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20. (Original) The walking brace of claim 19 wherein said expansion means comprises at least one

longitudinal slit, such that the portions of said rear shell member on either side of said longitudinal

slit can be pulled apart to expand said rear shell member laterally.

21. (Currently Amended) The walking brace of claim 20 wherein the an upper end of said

longitudinal slit terminates at the an upper edge of said rear shell member.

22. (Currently Amended) The walking brace of claim 20 wherein the an upper end of said

longitudinal slit terminates below the an upper edge of said rear shell member, and the portion of

the shell member between the upper edge of the shell member and the upper end of the longitudinal

slit is cut to allow the portions of the shell portion on either side of the slit to be pulled apart to

expand the width of the rear shell member.

23. (Original) The walking brace of claim 19 wherein said expansion means comprises a plurality of

longitudinally aligned slits, said longitudinally aligned slits being separated one from the other by

one or more frangible septa.

24. (Original) The walking brace of claim 19 wherein said expansion means comprises a plurality of

longitudinal slits spaced laterally from one another.

25. (Currently Amended) The walking brace of claim 19 wherein said expansion means comprises

at least one longitudinal slit having two ends, a at least one of said ends terminating at a frangible

septum, such that when said septum is broken said rear shell member can expand laterally.

26. (Currently Amended) The walking brace of claim 19 further comprising at least one adjustable

air cell having a means for communication between the an interior of said air cell and the

atmosphere, wherein said rigid shell comprises at least one protruding region for receiving said air

cell communication means, said region constructed such that said communication means is directed

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toward the front side of said walking brace.

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27. (Currently Amended) The walking brace of claim 19 wherein said rigid sole portion has an

opening therethrough in the area of the patient's heel, said opening extending through said an upper

surface and said a lower surface of said rigid sole portion, such that no portion of said rigid sole

portion is disposed below the patient's heel.

28. (Original) The walking brace of claim 27 further comprising a dual layer of resilient shock-

absorbing material disposed along said bottom surface of said rigid sole portion, said layer of

resilient shock-absorbing material having a heel portion extending upwardly through said opening

in said sole portion to a height no greater than slightly above said upper surface of said rigid sole

portion, said dual layer comprising an upper layer of a relatively softer material and a lower layer of

a relatively more durable material, said upper layer being in contact with the patient's heel, said

lower layer being in contact with the ground when the patient walks.

29. (Currently Amended) A walking brace for the lower leg of a patient, said walking brace

comprising: a leg portion adapted to fit substantially around the lower leg of a patient, and a rigid

sole portion adapted to fit beneath the foot of a patient, wherein said leg portion comprising

comprises a rigid shell integral with said sole portion, and at least one adjustable air cell having a

means for communication between the interior of said air cell and the atmosphere, wherein said

rigid shell comprises at least one protruding region for receiving said air cell communication means,

said region constructed such that said communication means is directed toward the a front side of

said walking brace.

30. (Currently amended) A walking brace for the lower leg of a patient, said walking brace

comprising:

a leg portion adapted to fit substantially around the lower leg of a patient,

a rigid sole portion adapted to fit beneath the foot of a patient, and

a strap for securing the leg portion about the lower leg of the patient, said strap being

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removably secured to said leg portion, and

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a pin member protruding from an outer surface of the leg portion, wherein said strap

includes means releasably engageable with said pin member.

31. (Currently amended) The walking brace of claim 30 wherein said leg portion <u>further</u> comprises

a pin member protruding from an outer surface thereof and retaining means for slidably receiving

said strap, wherein the retaining means defines at least one slot through which the strap is received.

and said strap comprises a means releasably engageable with said pin member, such that strap

member can be released from said-pin member and slidably removed from said-retaining means.

32. (New) A walking brace for a lower leg of a patient, the walking brace comprising:

a rigid sole portion adapted to fit beneath at least a portion of the patient's foot, wherein the

rigid sole portion has a length that is less than a length of the patient's foot; and

a shock-absorbing sole portion comprising a dual layer of resilient shock-absorbing material

disposed along a bottom surface of the rigid sole portion, and including a heel portion extending

upwardly adjacent to the rigid sole portion, such that the heel portion is in contact with the patient's

heel.

33. (New) The walking brace of claim 32 wherein said heel portion is integrally formed with said

upper layer of said dual layer of shock absorbing material.

34. (New) The walking brace of claim 32 wherein said heel portion has an upper surface

substantially coplanar with said upper surface of said sole portion.

35. (New) The walking brace of claim 32 wherein the thickness of said dual layer from the top

surface of the heel portion to the bottom surface of the bottom layer is about 1 inch.

36. (New) The walking brace of claim 32 further comprising a foam layer disposed over the upper

surface of said sole portion.

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37. (New) The walking brace of claim 32 further comprising at least one inflatable cell for

providing therapeutic pressure to said leg.

38. (New) The walking brace of claim 32 further comprising a leg portion adapted to fit

substantially around the lower leg, wherein said leg portion comprises a rigid shell integral with the

sole portion.

39. (New) The walking brace of claim 38 wherein the rigid shell comprises a rear shell member and

a front shell member, the rear shell member having a width, wherein the width is expandable.

40. (New) The walking brace of claim 39 wherein the rear shell member has at least one

longitudinal slit, such that portions of the rear shell member on either side of the at least one

longitudinal slit can be pulled apart, thereby laterally expanding the rear shell member.

41. (New) The walking brace of claim 39, wherein the rear shell member has a plurality of

longitudinally aligned slits, and the longitudinally aligned slits are separated one from the other by

at least one frangible septa.